

PATENT SPECIFICATION

1,002,317

DRAWINGS ATTACHED.

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COMPLETE SPECIFICATION.

Improvements in Tyres for Vehicles.

I, REGGIE HOPWOOD, a British Subject, of 43, Greenfields, Upton Heath, Chester, Cheshire, do hereby declare the invention, for which we pray that a patent may be granted to us, and the method by which it is to be performed, to be particularly described in and by the following statement:—

The present invention relates to tyres for vehicles and more particularly to a novel tread formation thereon.

According to the present invention, individual tread units on a tyre are each formed with major and minor parts separated by a slot extending from the radially outer surface of the tread and the major part has a hollow formed therein, a passage being provided in the major part or connecting the hollow to the slot and the minor part being sufficiently resilient to close said passage when the respective tread unit is under load whereby the hollow can act as a suction cup for improving the road holding capacity of the tyre on a smooth road or under wet conditions.

The invention is further described by way of example with reference to the drawings accompanying the Provisional Specification, wherein:—

Figure 1 is a plan view of part of a tyre with a tread according to the invention,

Fig. 2 is a side view to a larger scale showing one of the tread units, and

Fig. 3 is a plan view of the tread unit.

Referring to the drawings, a pneumatic rubber tyre 10 is provided with tread units 11 arranged in four rows, 22, 23, 24 and 25. As can be seen from Figs. 2 and 3, each tread unit 11 comprises a major part 12 and a minor part 13 separated from one another by a slot 14. The slot 14 extends from the radially outer surface of the tread and its radially outer portion is inclined

to the radially outer surface of the tread as can be seen from Fig. 2.

The major part 12 of the tread unit is provided with a hollow 15 and a passage 16 in the major part 12 communicates the base of the hollow 15 with an inclined wall of the slot 14. The slot 14 so divides the tread unit into parts that the minor part 13 is substantially more resilient than the major part 12. When the vehicle is travelling in the direction of the arrow A in Fig. 2, i.e. the tyre is rotating in the direction of the arrow B, and the vehicle is accelerating the acceleration forces acting on the tread deflect the minor part 13 more than the major part 12 and the slot 14 is closed thereby closing the passage 16. The hollow 15 then acts as a suction cup thereby assisting to hold the vehicle on the road and prevent skidding on smooth roads and during wet weather. Upon further rotation of the wheel the minor tread part 13 leaves the road and the slot 14 opens again to release the suction. It is not to be expected that the hollow will act as a suction cup on rough dry roads but under such conditions additional road holding power is not normally required.

In order that the tyre of the invention may provide additional road holding facilities when the vehicle is braking, the row of tread units 23 is arranged the opposite way round from the row 24, as can be seen in Fig. 1. The braking forces acting on the tread are in the opposite direction to the accelerating forces. In addition to provide additional road holding power against skidding sideways, the tread units 22 and 25 are arranged sideways in opposite transverse directions.

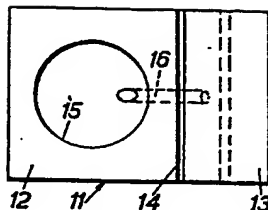
WHAT I CLAIM IS:—

1. A tyre the tread of which comprises a plurality of individual tread units each

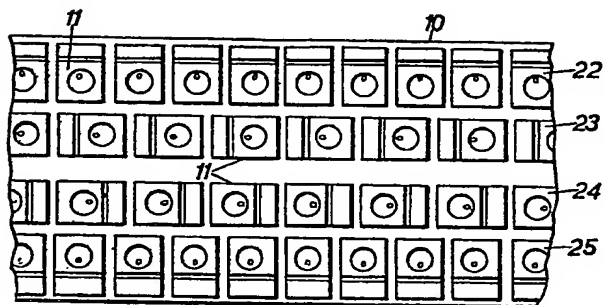
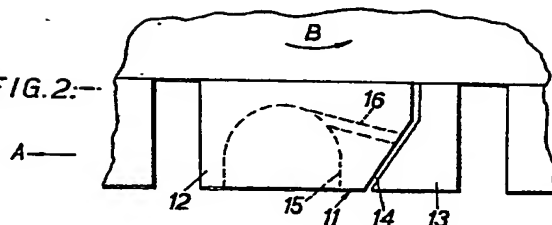
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—FIG. 3.—



—FIG. 2.—



—FIG. 1.—